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(54) **Optical fibre grating fabrication apparatus which minimizes diffraction effects**

(57) There is provided an optical fiber grating fabricating apparatus. To fabricate fiber gratings, an optical fiber (40,50) is prepared, a mask (42,52) with a predetermined period is spaced from the optical fiber (40,50), for forming patterns to be used in fabricating gratings on the optical fiber (40,50), a UV (Ultra Violet) light source

projects UV light in a perpendicular direction to the optical fiber (40,50), a lens (46,56) focuses the UV light, and a mobile concave lens (44,54) diverges the focused UV light along the length direction of the optical fiber (40,50) and changes the period of the fiber gratings while moving to and from.

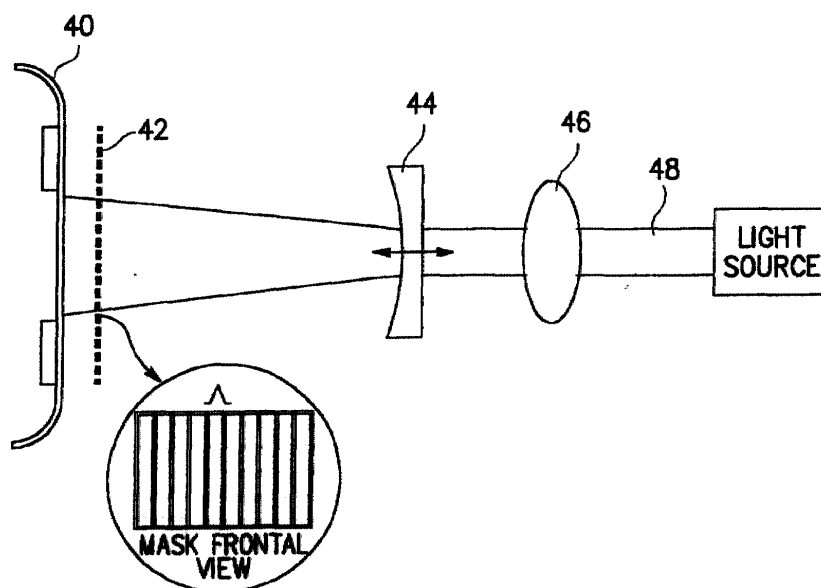


FIG. 4A

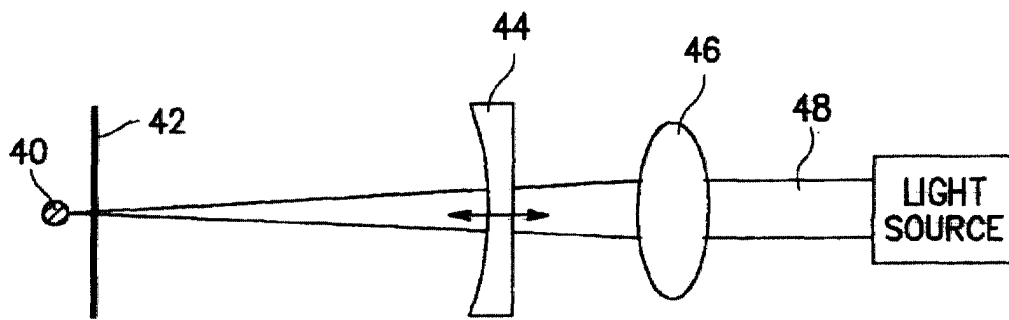


FIG. 4B



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 11 7381

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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Y	WO 00 11509 A (SAMSUNG ELECTRONICS CO LTD) 2 March 2000 (2000-03-02) * page 8, line 2-5; figures 1,3,4A-B * * page 5, line 29 - page 6, line 26 *	1,2	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G02B
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 25 January 2002	Examiner Riblet, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 11 7381

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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